

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES
MISSOURI CLEAN WATER COMMISSION



MISSOURI STATE OPERATING PERMIT

GENERAL PERMIT

In compliance with the Missouri Clean Water Law, (Chapter 644 R.S. Mo. as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92nd Congress) as amended,

MO-G920000

is authorized to discharge from the facility described herein, in accordance with the effluent limitations and monitoring requirements as set forth herein:

FACILITY DESCRIPTION

All Outfalls SIC #2875

Mixed feedstock composting operations under 20 acres. The operation is to be designed and operated as a no-discharge facility.

This permit authorizes only wastewater, including storm waters, discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with Section 644.051.6 of the Law.

November 15, 2002
Effective Date

December 23, 2004
Revised Date

Stephen M. Mahfood, Director, Department of Natural Resources
Executive Secretary, Clean Water Commission

November 14, 2007
Expiration Date
MO 780-0041 (10-93)

Jim Hull, Director of Staff, Clean Water Commission

APPLICABILITY

1. This permit authorizes the operation of no-discharge active composting operations that are under 20 acres in size. The acreage is measured by calculating the area that is within the composting perimeter, including unloading, storage, and handling of composting materials and finished compost. It does not include buffer zones, parking lots, maintenance facilities and storm water control basins. Any organic materials suitable for composting may be used as a feedstock. Industrial wastes must receive prior approval from the department. Approval may be obtained by writing to the Water Protection Program, P.O. Box 176, Jefferson City MO 65102.
2. If at any time, the Missouri Department of Natural Resources determines that the quality of waters of the state may be better protected by requiring the owner of the composting operations to apply for an individual NPDES permit, the Department may do so.
3. If at any time the owner of a composting operation should desire to apply for an individual NPDES permit, the owner may do so.
4. This permit does not apply to landfill operations or composting done in association with landfills. This permit does apply to composting operations on landfill property but whose operations are kept wholly separate from landfill operations.
5. This permit does not apply to the discharge of any water except emergency discharges during catastrophic rain events.
6. This permit applies to stockpiling of raw materials as necessary for the active production of compost. This permit also applies to the stockpiling of finished composts.
7. This permit does not apply to the compost quality, distribution, or use of the finished compost, except for pathogen reduction terms found in REQUIREMENTS below.
8. This permit does not apply to composting operations located within 100 feet of a water course, 300 feet of a lake, 1000 feet of a losing stream or sinkhole, or within 300 feet of a water supply well.
9. This permit does not apply to facilities that would discharge to outstanding national resource or outstanding state resource waters or their tributaries.

EXEMPTIONS

1. Compost sites which include less than 5% biosolids, septage, or any other form of domestic sewage, are under two (2) acres in size and are operated so as not to discharge are exempt from permitting requirements.
2. Distribution or marketing of composts are exempt from NPDES permitting. The Missouri Fertilizer Law (266.291, RSMo) and the Soil Conditioner Law (266.361, RSMo) may apply to these practices.
3. Uncomposted waste materials that are land applied in normal farming operations are exempt from permitting requirements. This exemption does not apply to stock piles of materials that exceed two (2) acres in size at an operating location.

REQUIREMENTS

1. The permittee shall not stockpile raw materials for a period to exceed five (5) calendar days before mixing unless the stockpile location has a stormwater collection system or is roofed.
2. The permittee shall not allow painted or treated wood products to be placed in the compost.
3. Any storm water collection basin is subject to construction permitting requirements under 10 CSR 20-6.010 and 6.015. Basins must be sealed in accordance with 10 CSR 20-8.
4. The composting area shall have a base, which may be made of asphalt, concrete, compacted earth, or other materials and shall comply with the permeability limitations under 10 CSR 20-8.020(13)(A)4.

REQUIREMENTS (continued)

5. Water Quality Standards

- (a) Discharges to waters of the state shall not cause a violation of water quality standards rule under 10 CSR 20-7.031, including both specific and general criteria.
 - (b) General Criteria. The following general water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:
 - (1) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;
 - (2) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
 - (3) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
 - (4) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;
 - (5) There shall be no significant human health hazard from incidental contact with the water;
 - (6) There shall be no acute toxicity to livestock or wildlife watering;
 - (7) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;
 - (8) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.
6. If the compost includes greater than 5% biosolids, septage, or any other form of domestic sewage, land application or distribution of the finished product shall follow the requirements of 40 CFR 503. If the compost is to be distributed to the public it shall have undergone one of the Processes to Further Reduce Pathogens found in Appendix B of 40 CFR 503. Detailed records of temperature monitoring related to 40 CFR 503 shall be maintained and made available to the department upon request.
7. All outfalls must be clearly marked in the field.
8. This permit may be reopened and modified, or alternatively revoked and reissued, to:
- (a) Comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C), and (D), 304(b)(2) and 307(a)(2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
 - (1) Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
 - (2) Controls any pollutant not limited in the permit.
 - (b) Incorporate new or modified effluent limitations or other conditions, if the result of a waste load allocation study, toxicity test, or other information indicates changes are necessary to assure compliance with Missouri Water Quality Standards.
 - (c) Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, a Total Maximum Daily Load (TMDL) limitation is developed for the receiving waters which are currently included in Missouri's current 303(d) list.
9. Compost feedstocks shall be tested for metals **prior to use in compost** unless the operator can provide information in order for the department to make the determination that testing is not required. The feedstocks shall at least be tested for Arsenic, Cadmium, Chromium, Copper, Lead, Mercury, Molybdenum, Nickel, Selenium, and Zinc. The metals shall be reported in mg/kg, dry weight. The department may require testing of additional parameters for some feedstocks. Yard waste, tree trimmings, cardboard, paper, sawdust, and vegetable waste are exempted from this requirement unless requested by the department. Results of metals testing shall be submitted to the Water Protection Program for review and approval. Compost that exceeds the Low Metals Concentration in 40 CFR 503 shall not be distributed to the public. These concentrations can also be found in Table 2 of Water Quality Guide Sheet 425, available from the Water Protection Program by request.
10. Permittee shall notify the Department within 24 hours of any discharge and shall submit a written report detailing the cause of the discharge and what steps have been taken to prevent such a discharge from recurring. The written report shall be submitted to the Department within 5 days of the discharge.

REQUIREMENTS (continued)

11. Permittee shall adhere to the following Best Management Practices:
- (a) Prevent the spillage or loss of fluids, oil, grease, fuel, etc. from vehicle maintenance, equipment cleaning, or warehousing activities and prevent the contamination of storm water from these substances.
 - (b) Provide for the collection and proper disposal of waste products including, but not limited to, petroleum waste products and solvents. All fueling facilities present on the site shall adhere to applicable federal and state regulations concerning underground storage, above ground storage, and dispensers, and shall include spill prevention, control and counter measures.
 - (c) Store all paint, solvents, petroleum products, and petroleum waste products in appropriate storage containers (such as drums, cans, or cartons) so that these materials are safely contained and not exposed to storm water.
 - (d) Provide good housekeeping practices on the site to keep trash or other solid waste from entering waters of the state.
 - (e) Designate an individual as responsible for environmental matters. Inspect, once per month on workdays, any structure that functions to prevent pollution from storm water or to remove pollutants from storm water. In addition, inspect these structures within 24 hours of each rainfall event of one inch or more. Inspect the facility in general to ensure that any Best Management Practices are continually implemented and remain effective.

ANNUAL REPORT

Records shall be maintained and summarized into an annual operating report which shall be submitted by January 28th of each year for the previous calendar year period. The report shall include the following:

- (a) Record of maintenance and repairs performed during the year, average number of times per month the facility is checked to see if it is operating properly, and description of any unusual operating conditions encountered during the year;
- (b) The number of days the lagoon has discharged during the year, the discharge flow, the reasons discharge occurred and effluent analysis performed; and
- (c) A summary of the irrigation operations including freeboard at the start and end of the irrigation season, the number of days of irrigation for each month, the total gallons irrigated, the total acres used, crops grown, crop yields per acre, the application rate in inches/acre per day and for the year, the monthly and annual precipitation received at the facility and summary of testing results.
- (d) Information on quantities and types of all raw materials stockpiled or composted during the year; results of any testing performed; quantity of compost sold, disposed or given away; and quantity on-site at the end of the year.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS					PAGE NUMBER 5 of 7	
					PERMIT NUMBER MO-G920000	
The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:						
OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
<u>Outfall #</u> - Emergency discharge from basin (Note 1)						
Flow	MGD	*			once/day**	24 hr. estimate
Biochemical Oxygen Demand ₅	mg/L		65	45	once/week**	grab
Total Suspended Solids	mg/L		110	70	once/week**	grab
Fecal Coliform	#/100mL	****			once/week**	grab
pH – Units	SU	***			once/week**	grab
Ammonia nitrogen as N	mg/L	****			once/week**	grab
Nitrate/nitrite as N	mg/L	****			once/week**	grab
Temperature	□F	*			once/week**	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>ANNUALLY</u> ; THE FIRST REPORT IS DUE <u>October 28, 2005</u> .						
<u>Outfall #</u> - Land Application Operational Monitoring (Note 2)						
Basin Freeboard	Feet	*			once/month	measured
Irrigation Period	Hours	*			daily	total
Volume Irrigated	gallons	*			daily	total
Application Area	acres	*			daily	total
Application Rate	inches/ acre	*			daily	total
Rainfall	inches	*			daily	total
MONITORING REPORTS SHALL BE SUBMITTED <u>ANNUALLY</u> ; THE FIRST REPORT IS DUE <u>October 28, 2005</u> .						
<u>Outfall #</u> - Irrigated Water (Note 3)						
Total Kjeldahl Nitrogen as N	mg/L	*			once/year	grab
Ammonia Nitrogen as N Nitrate/Nitrite as N	mg/L	*			once/year	grab
Phosphorus as P	mg/L	*			once/year	grab
pH	SU	***			once/year	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>ANNUALLY</u> ; THE FIRST REPORT IS DUE <u>October 28, 2005</u> . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						
B. STANDARD CONDITIONS						
IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED <u>Part I</u> STANDARD CONDITIONS DATED <u>October 1, 1980</u> , AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.						

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS					PAGE NUMBER 6 of 7	
PERMIT NUMBER MO-G920000						
The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:						
OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
<u>Outfall #</u> - Compost Feedstock (Notes 4 & 5)						
Arsenic	mg/kg	*****			once	composite
Cadmium	mg/kg	*****			once	composite
Chromium	mg/kg	*****			once	composite
Copper	mg/kg	*****			once	composite
Lead	mg/kg	*****			once	composite
Mercury	mg/kg	*****			once	composite
Molybdenum	mg/kg	*****			once	composite
Nickel	mg/kg	*****			once	composite
Selenium	mg/kg	*****			once	composite
Zinc	mg/kg	*****			once	composite
MONITORING REPORTS SHALL BE SUBMITTED <u>ANNUALLY</u> ; THE FIRST REPORT IS DUE <u>October 28, 2005</u> . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						
B. STANDARD CONDITIONS						
IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED <u>Part I</u> STANDARD CONDITIONS DATED <u>October 1, 1980</u> , AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.						

MO 780-0010 (8/91)

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

- * Monitoring requirement only.
- ** Monitor only when discharge occurs. Report as no-discharge when a discharge does not occur during the report period.
- *** pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.0-9.0 pH units.
- **** Comply with water quality standards per requirements #5.
- ***** Test each feedstock

Note 1 - **No-discharge facility requirements.** Storm water shall be stored and land applied during suitable conditions so that there is no-discharge from any stormwater storage basin or irrigation site. An emergency discharge may occur when excess water has accumulated above feasible irrigation rates due to precipitation exceeding the 1-in-10-year, 365-day rainfall or the 25-year, 24-hour storm event.

Note 2 - Basin freeboard shall be reported as basin water level in feet below the overflow level.

Note 3 - Water that is land applied shall be sampled at the irrigation pump or wet well. Land application shall not exceed 24 inches per acre per year.

Note 4 - Testing is required for a feedstock source, not each discrete batch of feedstock. Additional testing of the feedstock is not required unless changes occur that impacts the feedstock.

Note 5 – For the purposes of this permit, a composite sample shall include at least 7 discrete subsamples combined.

PERMIT TRANSFER

This permit may be transferred to a new owner by submitting an “Application for Transfer of Operating Permit” signed by the seller and buyer of the facility, along with the appropriate modification fee.

PERMIT RENEWAL REQUIREMENTS

Unless this permit is terminated, the permittee shall submit an application for the renewal of this permit no later than six (6) months prior to the permit’s expiration date.

TERMINATION OF PERMIT

If the activities covered by this permit have ceased and the site “closed” and all materials removed from the site, the permittee may request termination of this permit prior to its expiration date. The permittee shall submit Form H for “Termination of a General Permit”.